



## SCOPE OF THE PROJECT

### ***1) Description of the project, the purpose of and the need for, the project***

The scope of the project proposal includes all physical works, activities, and/or undertakings, as scoped by the NIRB on September 13, 2022, for the “Chidliak Diamond Mine” project and encompasses the entire project life.

#### ***a. Project Proposal Summary***

The proposed “Chidliak Diamond Mine” project (the Project) involves constructing, operating, and decommissioning a diamond mine at the Chidliak exploration site on the Hall Peninsula of Baffin Island, Nunavut approximately 120 kilometers (km) northeast of Iqaluit and 200 km south of Pangnirtung. De Beers proposes to use a “FutureSmart Mining” approach for the development and operation of the proposed mine, allowing for Kimberlite pipes to be mined using traditional and remote mining techniques and mobile camps to reduce potential environmental impacts. De Beers expects the proposed project to begin in March 2028 and for decommissioning to be completed by December 2051.

### ***2) Project Components***

- Mining of up to 35 Kimberlite Pipes through Open Pits and Underground mines;
  - Construction and closure of a Waste Rock pile;
  - Construction and closure of a mobile and modular Kimberlite processing facility (relocated as kimberlite pipes are mined);
  - Construction and closure of Processed Kimberlite Storage facilities
  - Continued Bulk Sampling;
  - Continued Blasting and Drilling Programs;
- Mobile and modular Accommodations Facilities (relocated as kimberlite pipes are mined);
- Supporting infrastructure including maintenance buildings, pipelines, powerlines, roads and berms;
- Equipment use:
  - Rotary and Fixed wing aircraft (including airships) for transport of equipment and personnel;
  - Use of Drills, Haul Trucks, Light Vehicles, various Loaders, and blast Equipment;
- Fuel storage:
  - 35,000,000 Litres of Diesel;
  - 10,000 Litres of Gasoline;
  - 30,000 Litres of Aviation Fuel
- Storage and use of Ammonium Nitrate for blasting;

- Construction, use, and decommissioning of additional site infrastructure: an Airstrip, landing pad and laydown pads, quarries/burrow pits;
- Decommissioning:
  - Demolition, removal, and/or relocation of buildings, equipment, and site infrastructure;
  - Revegetation of disturbed surfaces in the Project Development area;
  - Removal of any outstanding waste;
  - Non-hazardous waste materials that cannot be removed will be stored in an on-site landfill;
  - Hazardous materials will be removed from the site;
  - Mined Rock and Kimberlite facilities will remain in closure;
- Transportation of Materials to site potentially by:
  - Fixed wing aircraft and/or airships,
  - All-Weather Access Road or Winter Road and associated construction, use, and decommissioning, including the construction, maintenance and decommissioning of bridges and culverts and rehabilitation of streams as required; and/or
  - Ship to either a staging area in Cumberland Sound or the Iqaluit Deep Sea Port and transported to site via air or land using up to 20 vessels during construction and up to 10 vessels during operations.
- Site power provided through:
  - Potential construction and use of a Transmission Line from Iqaluit;
  - Potential installation of a small modular nuclear reactor and associated infrastructure;
    - Transportation, potential storage (if stored on site) and use of fuel for a nuclear reactor;
    - Management of nuclear waste stream, including closure;
  - Potential use of diesel generators and/or, wind and/or solar power and associated infrastructure.
- Water use and withdrawal for domestic and industrial purposes;
  - 10,000 cubic metres per day withdrawn combined from Qamaniruluk Y Lake, Qamanialuk Lake, Sunrise Lake, Glacier Lake, McKeand River, and other waterbodies;
  - Constructed wetlands and/or treatment plant for wastewater
  - Water management ponds;
- Waste Disposal
  - Organic food waste using an incinerator (200 kilograms/day);
  - Grey water (200 cubic metres per day);
  - Construction and closure of a Landfill (Non-combustible and inert waste).
  - Hazardous and non-hazardous waste management areas; and
  - Wastewater discharge.

***1) Anticipated ecosystemic and socio-economic impacts of the Project***

The assessment of the potential for ecosystemic and socio-economic impacts to result from the proposed project components and activities as outlined in the section above will be inclusive of the factors listed below. The assessment of impacts to each valued ecosystemic or socio-economic component or system shall take into account appropriate temporal and spatial boundaries and draw upon relevant information from scientific sources, Inuit Qaujimaningit<sup>1</sup>, and traditional and community knowledge.

- a. Air quality including dust and greenhouse gases
- b. Climate and meteorology
- c. Noise and vibration
- d. Terrestrial environment, including:
  - i) Terrestrial ecology
  - ii) Landforms and soils
  - iii) Permafrost and ground stability
- e. Geology including discussions regarding geological features and geochemistry
- f. Hydrological features and surface water quantity and quality
- g. Hydrogeology and groundwater, including groundwater quantity and quality
- h. Freshwater aquatic environment as defined in the *Fisheries Act* (2019), including:
  - i) Aquatic ecology
  - ii) Water and sediment quality
  - iii) Aquatic biota including representative fish as defined by the *Fisheries Act*
  - iv) Habitat including fish habitat
- i. Commercial, recreational, and Aboriginal fisheries
- j. Terrestrial vegetation
- k. Terrestrial wildlife and wildlife habitat, including:
  - i) Representative terrestrial mammals including caribou, caribou habitat, migration and behavior, muskoxen, wolverine,, Polar Bears, foxes, hares and wolves, and less conspicuous species that may be maximally exposed to contaminants
  - ii) Wildlife migration routes and crossings
- l. Birds and bird habitat, including but not limited to:
  - i) Raptors
  - ii) Migratory birds
  - iii) Marine Birds
  - iv) Resident birds of interest to Inuit
- m. Marine environment as defined in the *Fisheries Act* (2019), including:
  - i) Marine ecology
  - ii) Marine water and sediment quality
  - iii) Marine biota including fish and benthic flora and fauna
  - iv) Marine habitat
  - v) Commercial, recreational, and Aboriginal fisheries

<sup>1</sup> Inuit Qaujimaningit encompasses Inuit traditional knowledge (and variations thereof) as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both contemporary and traditional).

- vi) Marine wildlife
- n. Terrestrial and marine Species at Risk (including avian species) including:
  - i) Species under consideration for listing on the *Species at Risk Act*
  - ii) Species designated “at risk” by the Committee on the Status of Endangered Wildlife in Canada
- o. Socio-economic factors, including:
  - i) Economic development opportunities
  - ii) Employment
  - iii) Education and training
  - iv) Contracting and business opportunities
  - v) Population demographics
  - vi) Benefits and revenues (tax, royalties, etc.)
- p. Traditional activity and knowledge and community knowledge including:
  - i) Land use
  - ii) Food security
  - iii) Language
  - iv) Cultural and commercial harvesting
- q. Non-traditional land use and resource use
- r. Heritage resources
  - i) Archaeology
  - ii) Paleontology
  - iii) Cultural
- s. Health and well being
  - i) Individual and community wellness
  - ii) Family and community cohesion
- t. Community infrastructure and public services
- u. Health and safety including employee and public safety
- v. Cumulative effects, giving specific consideration to the project in terms of existing, proposed, and reasonably foreseeable future mining and transportation infrastructure projects. Specific focus is required for ongoing proposals and projects such as the Iqaluit Hydro-Electric Project (NIRB File No. 13UN006) which is currently awaiting the submission of the *Draft* Impact Statement and for the Proponent to provide annual updates on whether the company expects to re-engage in the assessment process.
- w. Residual effects
- x. Transboundary effects

## **2) Anticipated Effects of the Environment on the Project**

The scope of the assessment will include the potential for the Arctic environment to exert effects on the Project throughout the Project’s life, including the following specific factors:

- a. Climate and meteorology including climate change
- b. Permafrost
- c. Geotechnical hazards including slope movement, differential or thaw settlement, frost heave, and ice scour
- d. Subsidence
- e. Flooding

- f. Water quality or quantity
- g. Unfavorable geological conditions

The scope of the assessment will include the potential for conditions in Nunavut's unique socio-economic environment, including the following specific factors:

- a. Limited availability of labour and capacity
- b. Limitations on physical infrastructure

**3) *Measures proposed by the Proponent to avoid and mitigate adverse ecosystemic and socio-economic impacts, including contingency plans***

The scope of the assessment will include any contingency plans or risk management plans to avoid and mitigate adverse impacts caused by the proposed project components and activities. These plans must extend, where relevant, through all project phases. These plans shall take into account the appropriate temporal and spatial boundaries and are expected to draw upon relevant information from scientific sources, best practices, as well as traditional and community knowledge and are to include, but not be limited to:

- a. Avoidance, Mitigation, and Offsetting Measures
- b. Emergency response
- c. Spill response
- d. Hazardous materials management
- e. Accidents and malfunctions
- f. Regulatory requirements
- g. Monitoring and Adaptive Management
- h. Mitigation measures
- i. Contingency Plans

**4) *Steps which the Proponent proposes to take to optimize the benefits of the Project, with specific consideration being given to expressed community and regional preferences as to benefits***

The scope of the assessment will include steps that the Proponent proposes to take to optimize the benefits of the project, and should include, but not be limited to:

- a. Compensation and benefits
- b. Health benefits
- c. Human health and well-being
- d. Employment
- e. Education and training
- f. Land use
- g. Contracting and business opportunities, and
- h. Any non-confidential details from an Inuit Impact and Benefit Agreement

**5) *Measures proposed by the Proponent to compensate persons whose interests are adversely affected by the Project***

The scope of the assessment will include the steps that the Proponent proposes to take to compensate interests of parties adversely affected by the Project including all non-

confidential details pertaining to any Inuit Impact and Benefit Agreement pursued in connection with the Project.

**6) *Measures proposed by the Proponent to restore ecosystemic integrity after the permanent closure of the project***

The scope of the assessment will include any closure and reclamation plans to ensure that issues associated with the effective closure and reclamation of all Project components are considered at the earliest possible stage in the development process, thereby influencing design to take into account environmental issues related to closure and reclamation. These plans must extend, where relevant, through all project phases. These plans shall take into account the appropriate temporal and spatial boundaries and are expected to draw upon relevant information from scientific sources, best practices, as well as traditional and community knowledge and are to include, but not be limited to:

- a. Care and Maintenance
- b. Closure and Reclamation

**7) *Any monitoring programs that the Proponent proposes to establish and to manage the ecosystemic and socio-economic interests potentially affected by the Project***

The scope of the assessment will include any programs that would be established to monitor the potential ecosystemic and socio-economic impacts caused by the proposed project components and activities.

**8) *The interests in lands, waters, and other resources which the Proponent has acquired or seeks to acquire.***

The scope of the assessment will include consideration for any interests in lands, waters, and other resources which the Proponent has secured or seeks to secure based on the proposed works and activities or undertakings that constitute the Chidliak project proposal.

<b><i>Organization</i></b>	<b><i>Requirement</i></b>
Nunavut Impact Review Board	Project Certificate
Nunavut Water Board	Type 'A' Water Licence
Qikiqtani Inuit Association	Land Use Licences, leases, easements, rights-of-way, and Quarry Concession Permit(s)
Government of Nunavut – Department of Culture and Heritage	Archaeology Permit(s) and Palaeontology Permit(s)
Government of Nunavut – Department of Environment	Wildlife Research Permit, Spill Contingency Plan approval
Nunavut Research Institute	Scientific Research Licence
Crown-Indigenous Relations and Northern Affairs Canada	Class A Land Use Permit, Quarry Permits, and Land Use Lease(s)
Environment and Climate Change Canada	Approval for dredging, Environmental Emergency Plan approval

<b>Organization</b>	<b>Requirement</b>
Fisheries and Oceans Canada	Authorization pursuant to paragraphs 34.4(2)(b) and 35(2)(b) of the <i>Fisheries Act</i> If Species at Risk are present, then the following applies: “Permit pursuant to sections 32, 33, and subsection 58(1) of the <i>Species at Risk Act</i> ”.
Natural Resources Canada	Licence for a Factory and Magazine
Transport Canada	Approval under the <i>Canadian Navigable Waters Act</i> . Consultation in accordance with Canadian Aviation Regulation 307.
Workers Safety & Compensation Commission	Permit to Store Detonators, Explosives Use Permit
Canadian Nuclear Safety Commission	Licence to Prepare Site, Construct, and Operate ( <i>Nuclear Safety and Control Act</i> )

In addition to specific approvals, licences and permits required under applicable legislation, coordination and consultation is required with the Qikiqtaaluk Wildlife Board and local Hunters and Trappers Associations on key aspects of Wildlife management as set out under Article 5, Part 7 of the *Nunavut Agreement*.

**9) Options for carrying out the Project that are technically and economically feasible and the anticipated ecosystemic and socio-economic impacts of those options**

The scope of the assessment will include consideration for alternative means of carrying out the Project that might be economically and technically feasible and the environmental effects of those alternative means. This assessment will include alternate timing and development options, as well as presenting the “no-go” or “no-build” alternative, and the “preferred” alternative. The “no-go” alternative is not only a potentially stand-alone option; it also serves as a baseline for comparison with other development alternatives that might reasonably be proposed in the circumstances.

**10) Any other relevant information or matters**

The scope of the assessment will include any other matters that the NIRB considers relevant, including:

- a. Technical innovations previously untested in the Arctic including new technology for port and road design and operations, airships, and new mining technologies
- b. Inuit Qaujimaningit, traditional and community knowledge
- c. Statement of consultation principles and practices
- d. Significant effects analysis
- e. Sustainability analysis
- f. Interactions with Valued Ecosystem Components and Valued Socio-Economic Components
- g. Discussion of similar resource development projects in other jurisdictions
- h. Planned future development and the associated level of uncertainty